

KIRKLAND ALERT

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The U.S. Supreme Court Provides Guidance on the Limits of Patent-Eligible Subject Matter

Ever since the Supreme Court of the United States granted *writ of certiorari* in *Bilski v. Kappos*, No. 08-964, the question on many patent professionals' minds has been whether the Court would uphold the Federal Circuit's "machine-or-transformation" test. *In re Bilski*, 545 F.3d 943 (Fed. Cir. 2008). On June 28, 2010, Justice Kennedy, speaking for a divided Court, answered that question and held that the "machine-or-transformation" test is a useful and important investigative "clue" for determining whether process claims are patent-eligible under 35 U.S.C. § 101; it is not, however, the exclusive test. *Bilski v. Kappos*, No. 08-964, slip op. at 8 (June 28, 2010). In this distribution, we will take you through the claims at issue in *Bilski v. Kappos*, explain the Court's holding, and discuss how the Court's holding may be applied.

1. The Claims at Issue and the Birth of the Machine-or-Transformation Test

The claims in the *Bilski* application cover how sellers of commodities can hedge their positions against the possibility of future price fluctuations. U.S. Pat. App. No. 08/833,892. In particular, claim one of the *Bilski* application recites:

A method for managing the consumption risk costs of a commodity sold by a commodity provider at a fixed price comprising the steps of:

- (a) initiating a series of transactions between said commodity provider and consumers of said commodity wherein said consumers purchase said commodity at a fixed rate based upon historical averages, said fixed rate corresponding to a risk position of said consumers;
- (b) identifying market participants for said commodity having a counter-risk position to said consumers; and
- (c) initiating a series of transactions between said commodity provider and said market participants at a second fixed rate such that said series of market participant transactions balances the risk position of said series of consumer transactions.

Id. The dependent claims in the application limit this method to commodities trading in energy markets. *See id.*

The patent examiner rejected all of the pending claims under § 101 stating that "the invention is not implemented on a specific apparatus and merely manipulates [an] abstract idea and solves a purely mathematical problem without any limitation to a particular application..." *Ex parte Bilski*, No. 2002-2257, 2006 WL 5738364, *1 (B.P.A.I. Sept. 26, 2006). The Board of Patent Appeals and Interferences affirmed the rejection, and concluded that a transformation of "non-physical financial risks and legal liabilities" was not patentable subject matter. *Id.* at *18. The Board further concluded that the claims were improper because they "preempt[] any and every possible way of performing the steps of the [claimed process], by human or by any kind of machine or by any combination thereof." *Id.* at *20.

The Federal Circuit affirmed the rejection and held *en banc* that a process is patent-eligible under § 101 only if: "(1) it is tied to a particular machine or apparatus, or (2) it transforms a particular article into a different state or thing." *In re Bilski*, 545 F.3d at 954. While fundamental principles, such as phenomena of nature, mental process, or abstract intellectual concept, are not patent-eligible, an application of a fundamental principle for a

particular and well defined use, however, “may well be deserving of patent protection.” *Id.* at 953. The “machine-or-transformation” test was thus intended to ensure that a claimed process covered only a “particular application” of a fundamental principle and would not pre-empt all uses of the principle. *Id.*

The court went on to explain that the mere recitation of a machine or transformation was insufficient to satisfy the test requiring that the “use of a specific machine or transformation of an article must impose meaningful limits on the claim’s scope.” *Id.* at 961. Moreover, the “involvement of the machine or transformation in the claimed process must not merely be insignificant extra-solution activity.” *Id.* at 962. For example, simply “adding a data-gathering step” to a claim directed to the use of a fundamental principle—“without specifying how” the data is gathered—may also inappropriately pre-empt all uses of the principle “because every [principle] inherently requires the gathering of data inputs.” *Id.* at 963. In essence, the claimed machine or transformation “must be central to the purpose of the claimed process.” *Id.* at 962.

The court noted that processes for “chemical or physical transformations of physical objects or substances” are clearly patent-eligible when they otherwise satisfy the fundamental requirements of being new and novel. *Id.* But where data does not represent a physical and tangible object, the mere display or manipulation of that data is not patent-eligible; especially when the claim does “not specify any particular type or nature of data; nor ... specify how or from where the data was obtained or what the data represent[s].” *Id.* So, for example, while the graphical display of X-ray attenuation data is patent-eligible because the data “clearly represented physical and tangible objects, namely the structure of bones, organs, and other body tissues,” *id.* at 963, graphical display or manipulation of abstract concepts or data, like legal obligations or business risks, “cannot meet the test because they are not physical objects or substances, and they are not representative of physical objects or substances.” *Id.*

2. The Supreme Court Retains the Machine-or-Transformation “Clue” and Business Method Patents

Starting with the language of § 101, Justice Kennedy, writing for a majority of the five Justices,¹ observed that the patent statute specifies four independent categories of patent-eligible subject matter: new and use-

ful processes, machines, manufactures, and compositions of matter. 35 U.S.C. § 101. Though not required by the text of the statute, the Court’s precedent has made clear that “laws of nature, physical phenomena, and abstract ideas” are “specific exceptions to § 101’s broad patent-eligibility principles.” *Bilski*, No. 08-964, slip op. at 5. While a claimed invention may fall within one of the four categories of patent eligible subject matter, it is not automatically entitled to protection under the Patent Act. Instead, it must still satisfy all of the conditions and requirements of §§ 102, 103, and 112. *Id.*

The Court proceeded to address the scope of the term “process” as used in § 101. It first observed that the statutory definition of “process” does not require a claimed invention to be tied to a machine or to transform an article to be patent-eligible and refused to impose such a limitation. *Id.* at 7 (citing 35 U.S.C. § 100(b)). As such, the Court found that the “machine-or-transformation” test cannot be the exclusive test of patent-eligibility for process claims. In so finding, the Court noted that its earlier precedent precluded any hard-line rule of patent-eligibility not expressly required by the text of the statute. *Id.* at 8 (citing *Parker v. Flook*, 437 U.S. 584, 588, fn. 9). The majority believed that the Court had previously established² the “machine-or-transformation” test as “a useful and important clue, an investigative tool, for determining whether some claimed inventions are processes under § 101.” *Id.* at 8. The test, however, was not intended as “the sole test” for this inquiry. *Id.* In short, the Court endorsed the continued application of the “machine-or-transformation” test to, at least in part, determine the patent-eligibility of process claims.

The definition of “process” in the statute also does not “categorically exclude[] business methods.” *Id.* at 10. In fact, the Court was unaware of any ordinary, contemporary, and common meaning of “method” that would exclude business methods. *Id.* Moreover, the Court observed that the infringement defense provided by 35 U.S.C. § 273(b)(1) is available for a “method of doing or conducting business.” 35 U.S.C. § 273(a)(3). Congress would not have passed such a law if it did not contemplate that at least some business method patents were patent-eligible. Thus, the Court reasoned that categorically excluding business methods from the scope of § 101 would render § 273 meaningless, contrary to recognized canons of statutory construction. *Bilski*, No. 08-964, slip op. at 11.

The majority cautioned, however, that while § 273 leaves open the possibility of business method patents, “it does not suggest broad patentability of such claimed inventions.” *Id.* It appears that the Court was attempting to strike a balance here between promoting innovation by granting limited patent monopolies, on the one hand, and the undetermined impact of a broad prohibition on business method patents, on the other.

The Court also rejected the future application of the “useful, concrete, and tangible result” test. *See State Street Bank & Trust Co. v. Signature Fin. Group, Inc.*, 149 F.3d 1368, 1373 (Fed. Cir. 1998). All of the Justices agreed that the *State Street* test was not viable, with five Justices expressly rejecting its future application. *See Bilski*, No. 08-964, slip op. at 16; *Id.* at 2, fn 1 (Stevens, J., concurring); *Id.* at 3 (Breyer, J., concurring).

Turning to the *Bilski* claims themselves, the Court unanimously agreed that the claims at issue did not claim patent-eligible subject matter under § 101. *Bilski*, No. 08-964, slip op. at 13. Justice Kennedy’s majority opinion concluded that the applicants’ claims recited abstract ideas and affirmed their rejection by the Patent Office. The majority resolved the case by narrowly applying its earlier precedent in *Benson*, *Flook*, and *Diehr*.³ The Court first recognized that hedging is a “fundamental economic practice;” one that is “taught in any introductory finance class.” *Id.* at 15. In short, an abstract idea. *Id.* Finding that the applicants’ claims recite an abstract idea, the Court reasoned that allowing patent protection for such claims would “pre-empt use of this [hedging] approach in all fields, and would effectively grant a monopoly over an abstract idea.” *Id.* at 13. Thus, the claims at issue were not patent-eligible. *Id.*

The remaining claims in the *Bilski* application merely claim applications of hedging to certain industries. *Id.* However, the Court’s decision in *Flook* made clear that “limiting an abstract idea to one field of use or adding token postsolution components did not make the concept patentable.” *Id.* As such, limiting the claims to particular fields of use did not convert the abstract idea of hedging to a patent-eligible “process” under § 101.

The Court’s decision included two concurring opinions. In the first, Justice Stevens, joined by Justices

Ginsburg, Breyer, and Sotomayor, concurred in judgment but argued that a method of doing business is not a “process” under § 101. *Id.* at 2-3, 47 (Stevens, J., concurring). They agreed that the claims at issue recited an abstract idea, *id.* at 8, but would have resolved the case by holding that the term “process,” as historically understood and used in § 101, excludes business methods from its scope. *See id.* at 40, 47. Such an exclusion, however, would not mean that all business-related processes are not patent-eligible. However, the claims at issue are not “processes” because they “describe[] only a general method of engaging in business transactions—and business methods are not patentable.” *Id.*

Justice Breyer wrote a separate concurrence and agreed with Justice Stevens that a “general method of engaging in business transactions is not a patentable ‘process’” within the meaning of § 101. *Id.* at 1 (Breyer, J., concurring). Justice Scalia joined part of Justice Breyer’s concurrence to agree with the majority that a process claim may be patent-eligible under § 101 when, considered as a whole, it performs a function which the patent law was designed to protect. *Id.* at 3. The “machine-or-transformation” test is thus an “important example” of how the Patent Office or a court could determine patent-eligibility; the test, however, is not the “sole test” for such an inquiry. *Id.*

3. How *Bilski* Will Shape the Future

The Court’s holding provides some guidance for going forward. First and foremost, claims reciting methods of doing business remain patent-eligible. To receive a patent for such a method, the application must still satisfy the requirements of §§ 102, 103, and 112. Secondly, the Court’s decision allows the Patent Office and the courts to continue to use the “machine-or-transformation” test to, at least in part, provide a “clue” as to whether a claimed process falls within the scope of “process” in § 101. However, the Court’s opinion leaves the door open for claims that are neither tied to a particular machine nor transform an article from one state to another. Such claims may still be patent-eligible as long as the recited method is not directed to an abstract idea.⁴

Primarily the case relies on future decisions to refine this delicate balance. Indeed, in two cases decided on June 29, 2010, on summary disposition, the Court granted *writ of certiorari*, vacated the judgment, and

remanded two pending patent cases for further consideration in light of its *Bilski* decision. See *Mayo Collaborative Svcs. v. Prometheus Laboratories*, No. 09-490 (June 29, 2010); *Classen Immunotherapies, Inc. v. Biogen Idec*, No. 08-1509 (June 29, 2010). We will continue to watch for future decisions applying the Court's *Bilski* decision to get more clarity on its appropriate bounds and application.

¹ Justices Roberts, Thomas, and Alito joined the opinion in full and Justice Scalia joined except for Part II.B.2 and II.C.2. Justice Stevens filed an opinion concurring in judgment in which Justices Ginsburg, Breyer, and Sotomayor joined. Justice Breyer filed a separate opinion concurring in judgment in which Justice Scalia joined as to Part II.

² *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972) ("Transformation and reduction of an article 'to a different state or thing' is the clue to the patentability of a process claim that does not include particular machines"); *Parker v. Flook*, 437 U.S. 584, 588, fn. 9 (1978) ("An argument can be made, however, that this Court has only recognized a process as within the statutory definition when it either was tied to a particular apparatus or operated to change materials to a 'different state or thing'"); *Diamond v. Diehr*, 450 U.S. 175, 192 (1981) ("[W]hen a claim containing a mathematical formula implements or applies that formula in a structure or process which, when considered as a whole, is performing a function which

the patent laws were designed to protect (e.g., transforming or reducing an article to a different state or thing), then the claim satisfies the requirements of § 101").

³ In *Benson*, the Court rejected claims for an algorithm for converting numbers because such a patent "would wholly pre-empt the mathematical formula [underlying the algorithm] and in practical effect would be a patent on the algorithm itself." *Id.* at 13-14. In *Flook*, the Court rejected claims limiting the use of an algorithm to a particular field of use by holding that abstract ideas cannot become patent-eligible "by attempting to limit the use of the [abstract idea] to a particular technological environment or adding insignificant post-solution activity." *Id.* In *Diehr*, the Court clarified that while laws of nature, physical phenomena, and abstract ideas were not patent-eligible, "an application of a law of nature or mathematical formula to a known structure or process may well be deserving of patent protection." *Id.* (emphasis in original). Because the invention in *Diehr* was not an attempt to patent a mathematical formula, but rather was an industrial process applying the formula, it was not directed to an abstract idea and was thus patent-eligible. *Id.* at 15.

⁴ See, e.g., U.S. PATENT & TRADEMARK OFFICE, MEMORANDUM (June 28, 2010), at 2 (stating that examiners should continue to examine patent applications using the machine-or-transformation test). If a claimed method meets the test, it is likely patent-eligible "unless there is a clear indication that the method is directed to an abstract idea." *Id.* If a claimed method does not meet the test, it is likely not patent-eligible "unless there is a clear indication that the method is not directed to an abstract idea." *Id.*

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